

II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

After entering this Reply, claims 1-9, 15, and 16 remain pending.

It is noted that, after discussing the claim language with our foreign associate, the language "covering area" previously used in claim 1 may be more appropriately translated as "covered area". As such, the claims have been amended to reflect this terminology.

Rejections Under 35 U.S.C. § 103

Claims 1-2 and 4-7 and 15-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,800,511 to Park et al. (Park) in view of U.S. Patent No. 5,821,575 issued to Mistry et al. (Mistry).

Claim 1 recites that the connecting region also covering a covered area of the source region such that the connecting region extends across the first side of the substrate region to the source region, and that the part of the covered area of the substrate region is located between the insulating layers and between the control regions.

The last feature of the claim should make it clear that: a) the part of the top layer of substrate 14 that is covered by the connection region 28 is arranged between insulating layers 100 and 110, and b) the part of the top layer of substrate 14 that is covered by the connection region 28 is arranged also between control layers 20 and 22.

According to Figure 10A of the current application silicided region 28 (connecting region) is located between insulating layers 100 and 102 (see Figure 9A) and also between the control regions (gates) 22 and 20.

For the examiner's convenience the numbering of the sides is provided below:

- 1) source in front of the paper plane,
- 2) drain behind the paper plane,
- 3) left side in Figure 10A,
- 4) right side in Figure 10A,
- 5) insulation region 12 below substrate body 14,
- 6) region above silicide layer 28.

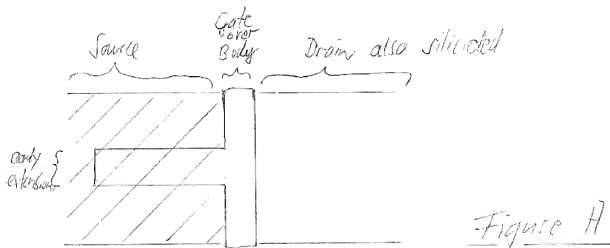
According to the Office Action, page 4, lines 9 and 10, it is alleged that Mistry shows "the connection region (35) covering the substrate region between I) the insulating layers (44, 22) and between II) the control regions (45). However, if Mistry is read according to claim 1 the following is true: - I) The layers 44 and 22 correspond to the "insulating regions" at the fifth side (Figure 10A, below) and at the sixth side (Figure 10A, above), but not to the "insulating layers" at the third side (Figure 10A, left side) and at the fourth side (Figure 10, right side). - II) Mistry shows only one control region 45.

Further, it is noted that the examiner previously contended that the connection region 35 extended into the control region 45 as a continuation of the dotted box in Figure 5 of Mistry. However, a detailed review of the reference would indicate that such an assumption would be incorrect. The dotted rectangular volume in 46 is an artifact of doping the connection region 35. The artifact (dotted rectangular volume in 46) does not form part of the connection region 35 and is discontinuous from the connection

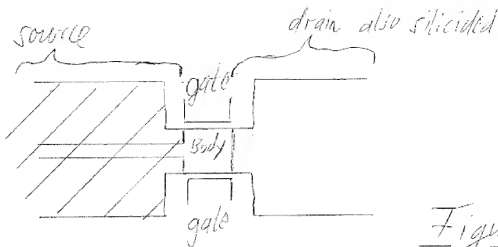
region 35. Otherwise, the connection region 35 would serve as a short between the gate and source regions of the transistor causing it to become inoperable.

Therefore the silicide 35 of Mistry reference is not arranged between control regions. This means that the Examiner has not shown the features I) and II) in any prior art document.

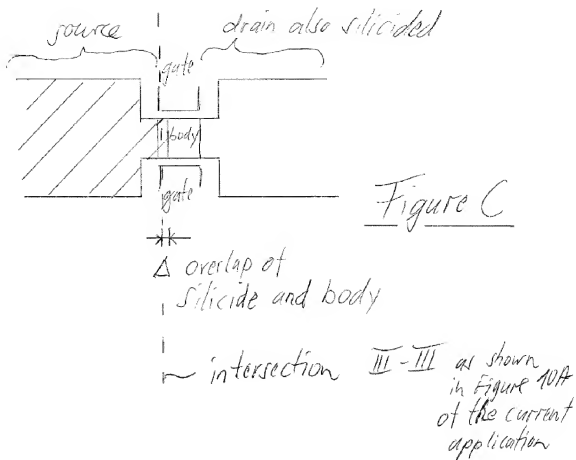
The following sketches A-C are provided for additional clarity:



- Figure A refers to a body contact according to Mistry. Mistry relates to a planar field effect transistor. There is enough lateral space to extend the body region to the left side and thereby to separate the source region. The source region (for instance n-doped) and the extended body region (for instance p-doped) are short circuited by the covering silicide, see hatched area. This means that also the body region below the gate is at the same potential as the source.



- Figure B refers to a simple transfer of the teaching of Mistry to a FinFET transistor. Again, the body region is extended to the left to divide the source area in two parts. Again, a silicide is shown by the hatched area. Neither in Figure A nor in Figure B the hatched covering region is arranged between the gate isolation of the FinFet or between the sidewall gate electrodes of the FinFet. The disadvantage of Figure B is that the space at the Fin for extending the body region is very narrow and should only be used for the source region.



- Figure C shows the FinFet according to the current application. According to the the current application the body region below or between the gate electrodes is not extended. Contrary, the silicide region is extended to the right side, i.e. between or below the gate electrode. As such, the electrical contact between the source region and the body region of the transistor can be produced very easily even for a FinFet transistor.

From the above analysis it can be clearly seen that the combination of Park and Mistry do not teach each of the elements provided in claim 1. Therefore, claim 1 is patentable in light of these references. Further, claims 2 and 4-7 and 15-16 depend

from claim 1 and are, therefore, patentable for at least the same reasons as given above in support of claim 1.

Claims 3 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Park and Mistry as applied to claim 1 above, and further in view of U.S. Patent No. 5,683,918 issued to Smith et al. (Smith).

Claims 3 and 8 depend from claim 1 and are, therefore, patentable for at least the same reasons as given above in support of claim 1.

Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Park and Mistry as applied to claim 1 above, and further in view of U.S. Publication No. 2003/0178670 issued to Fried et al. (Fried).

Claim 9 depends from claim 1 and is, therefore, patentable for at least the same reasons as given above in support of claim 1.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is requested.

Respectfully submitted by,

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